National Semiconductor

ADVANCE INFORMATION

54FCT/74FCT646
Octal Transceiver/Register with TRI-STATE® Outputs

General Description

The 'FCT646 consist of registered bus transceiver circuits, with outputs, D-type flip-flops and control circuitry providing multiplexed transmission of data directly from the input bus or from the internal storage registers. Data on the A or B bus will be loaded into the respective registers on the LOW-to-HIGH transition of the appropriate clock pin (CPAB or CPBA).

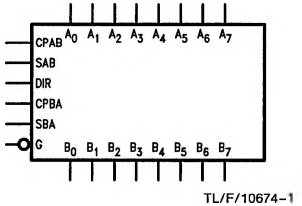
FACT™ FCT utilizes NSC quiet series technology to provide improved quiet output switching and dynamic threshold performance.

FACT FCT features GTO™ output control and undershoot corrector in addition to a split ground bus for superior performance.

Features

- NSC 54FCT/74FCT646 is pin and functionally equivalent to IDT 54FCT/74FCT646
- Independent registers for A and B buses multiplexed real time and stored time
- Input clamp diodes to limit bus reflections
- TTL/CMOS input and output level compatible
- I_{OL} = 64 mA (Com), 48 mA (Mil)
- CMOS power levels
- 4 kV minimum ESD immunity
- Military product compliant to MIL-STD-883

Logic Symbols



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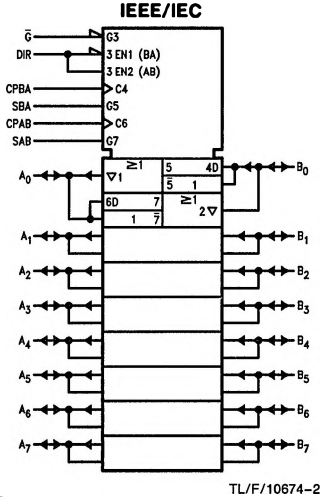
IEEE/IEC



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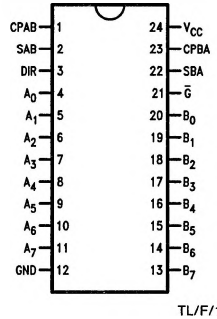
Pin Names	Description
A_0–A_7	Data Register A Inputs Data Register A Outputs
B_0–B_7	Data Register B Inputs Data Register B Outputs
CPAB, CPBA	Clock Pulse Inputs
SAB, SBA	Transmit/Receive Inputs
$\overline{G}$	Output Enable Input
DIR	Direction Control Input

Connection Diagrams

Pin Assignment for DIP, Flatpak and SOIC



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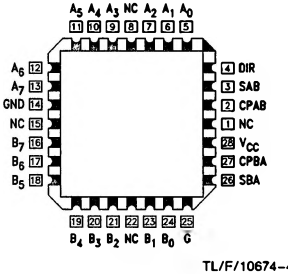
Pin Assignment for LCC and PCC



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